

Claims:

1. A method of managing a telecommunications network, comprising:
associating a network device resource corresponding to a network device with a
reference;

5 generating a network device data request including the reference; and
retrieving network device data corresponding to the network device resource in
accordance with the reference.

10 2. The method of claim 1, wherein retrieving network device data corresponding to
the network device resource in accordance with the reference, comprises:
using the reference to dynamically determine which network device data to
retrieve.

15 3. The method of claim 2, wherein the reference comprises a group name.

4. The method of claim 1, further comprising:
storing network device resource data corresponding to the network device
resource in a first data repository, wherein the network device resource data includes
the reference;

20 sending the network device data request including the reference to the first data
repository; and

wherein retrieving network device data corresponding to the network device
resource in accordance with the reference, comprises:

25 searching the first data repository for the reference; and
retrieving the network device resource data including the reference from the first
data repository.

5. The method of claim 4, further comprising:
storing user profile data in a second data repository, wherein the user profile data
30 includes the reference; and

wherein generating a network device data request including the reference,
comprises:

generating a network data request using the reference from the user profile data in
the second data repository.

6. The method of claim 4, wherein the first data repository is embedded within the network device.
7. The method of claim 5 wherein the first and second data repositories are databases.
8. The method of claim 1, wherein the network device resource comprises a configured resource.
9. The method of claim 8, wherein the configured resource comprises a network protocol layer one resource.
10. The method of claim 9, wherein the network protocol layer one resource comprises a SONET path.
11. The method of claim 8, wherein the configured resource comprises a network protocol upper layer resource.
12. The method of claim 11, wherein the network protocol upper layer resource comprises a virtual ATM interface.
13. The method of claim 11, wherein the network protocol upper layer resource comprises an ATM permanent virtual circuit.
14. The method of claim 11, wherein the network protocol upper layer resource comprises an ATM interface.
15. The method of claim 11, wherein the network protocol upper layer resource comprises an MPLS interface.
16. The method of claim 11, wherein the network protocol upper layer resource comprises an IP interface.

17. The method of claim 11, wherein the network protocol upper layer resource comprises an MPLS path.

18. The method of claim 1, wherein associating a network device resource corresponding to a network device with a reference, comprises:
associating a plurality of network device resources corresponding to a network device with a reference; and

wherein retrieving network device data corresponding to the network device resource in accordance with the reference, comprises:

retrieving network device data corresponding to the plurality of resources in accordance with the reference.

19. The method of claim 1, wherein the network device resource is a first network device resource, the network device data request is a first network device data request and the reference is a first reference and wherein the method further comprises:

associating a second network device resource corresponding to the network device with a second reference;

generating a second network device data request including the second reference;

and

retrieving network device data corresponding to the second network device resource in accordance with the second reference.

20. A method of managing a telecommunications network, comprising:

storing a reference in a first data repository, wherein the reference is associated with a network device in the telecommunications network;

storing the reference in a second data repository, wherein the second data repository stores network device data corresponding to the network device and wherein the reference is associated with network device data corresponding to one or more network device resources;

detecting a request from a user for data corresponding to the network device;

generating a data access request to the second data repository using the reference from the first data repository; and

retrieving network device data associated with the reference from the second data repository.

5 21. The method of claim 20, wherein retrieving network device data associated with the reference from the second data repository comprises:

using the reference to dynamically determine which data in the second data repository is retrieved.

10 22. The method of claim 20, wherein the first and second data repositories are databases and wherein retrieving network device data associated with the reference from the second database, comprises:

using the reference in a database query to actively filter which data in the second database is retrieved.

15 23. The method of claim 22, wherein generating a data access request to the second database using the reference from the first database comprises:

generating a where clause including the reference; and
sending the where clause to the second database.

20 24. The method of claim 20, wherein the reference comprises a group name.

25 25. The method of claim 20, wherein the first and second data repositories are databases.

26. The method of claim 20, wherein the first data repository is a central data repository and the second data repository is embedded within the network device.

27. The method of claim 20, further comprising:
displaying the retrieved data in a user interface.

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28. The method of claim 20, wherein the first and second data repositories are relational databases and the reference is stored in a first table in the first database and in a second table in the second database.

29. The method of claim 28, wherein the first table is a user resource group table and the second table is a managed resource group table.

30. The method of claim 20, further comprising:

5 generating a user profile logical managed object (LMO) including the reference from the first data repository; and

 wherein generating a data access request to the second data repository using the reference from the first data repository, comprises:

10 generating a data access request to the second data repository using the reference from the user profile LMO.

31. The method of claim 30, wherein prior to generating a user profile LMO, the method further comprises:

15 detecting a user log-on request.

32. The method of claim 20, wherein detecting a request from a user for data corresponding to the network device comprises:

 detecting the user request through a network management system (NMS) client; and

20 sending a data request from the NMS client to an NMS server, wherein the NMS server generates the data access request to the second data repository using the reference from the first data repository and retrieves the network device data associated with the reference from the second data repository; and

 wherein the method further comprises:

25 sending the retrieved data from the NMS server to the NMS client.

33. The method of claim 32, further comprising:

 generating a user profile logical managed object (LMO) at the NMS server, wherein the user profile LMO includes the reference from the first data repository;

30 sending the NMS client the user profile LMO; and

 wherein generating a data access request to the second data repository using the reference from the first data repository, comprises:

 generating a data access request to the second data repository utilizing the reference from the user profile LMO.

34. The method of claim 32, further comprising:

generating a user profile LMO at the NMS server, wherein the user profile LMO includes the reference from the first data repository;

5 generating a client user profile LMO at the NMS server, wherein the client user profile LMO includes the reference from the user profile LMO;

sending the client user profile LMO to the NMS client; and

wherein generating a data access request to the second data repository using the reference from the first data repository, comprises:

10 generating a data access request to the second data repository utilizing the reference from the client user profile LMO.

35. The method of claim 20, further comprising:

removing the reference in the second data repository;

15 detecting another request from the user for data corresponding to the network device;

generating a data access request to the second data repository using the reference from the first data repository; and

returning an empty data set in response to the user request.

20 36. The method of claim 20, wherein the reference is a first reference and the one or more network device resources are a first one or more network device resources and the method further comprises:

storing a second reference in the first data repository, wherein the second reference is associated with the network device;

25 storing the second reference in the second data repository, wherein the second reference is associated with network device data corresponding to a second one or more network device resources; and

wherein generating a data access request to the second data repository using the reference from the first data repository, comprises:

30 generating a data access request to the second data repository using the first and second references from the first data repository; and

wherein retrieving network device data associated with the reference from the second data repository, comprises:

retrieving network device data associated with the first and second references from the second data repository.

5 37. The method of claim 36, wherein the first and second one or more network device resources comprise different network device resources.

38. The method of claim 36, wherein the first and second one or more network device resources comprise at least one common network device resource.

10 39. The method of claim 20, wherein the reference is a first reference, the one or more network device resources are a first one or more network device resources and the user is a first user, and wherein the method further comprises:

storing a second reference in the first data repository, wherein the second reference is associated with the network device;

15 storing the second reference in the second data repository, wherein the second reference is associated with network device data corresponding to a second one or more network device resources;

detecting a request from a second user for data corresponding to the network device;

20 generating a data access request to the second data repository using the second reference from the first data repository; and

retrieving network device data associated with the second reference from the second data repository.

25 40. The method of claim 39, wherein the first and second references comprise the same reference.

41. The method of claim 39, wherein the first and second references comprise different references.

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42. The method of claim 20, wherein the reference is a first reference and the network device is a first network device, and wherein the method further comprises:

storing a second reference in the first data repository, wherein the second reference is associated with a second network device in the telecommunications network;

5 storing the second reference in a third data repository, wherein the third data repository stores network device data corresponding to the second network device and wherein the second reference is associated with network device data corresponding to one or more network device resources within the second network device;

detecting a request from the user for data corresponding to the second network device;

10 generating a second data access request to the third data repository using the second reference from the first data repository; and

retrieving network device data associated with the second reference from the third data repository.

15 43. The method of claim 20, wherein the reference is a first reference, the user is a first user and the network device is a first network device, and wherein the method further comprises:

20 storing a second reference in the first data repository, wherein the second reference is associated with a second network device in the telecommunications network;

storing the second reference in a third data repository, wherein the third data repository stores network device data corresponding to the second network device and wherein the second reference is associated with network device data corresponding to one or more network device resources within the second network device;

25 detecting a request from a second user for data corresponding to the second network device;

generating a second data access request to the third data repository using the second reference from the first data repository; and

30 retrieving network device data associated with the second reference from the third data repository.

44. A method of managing a telecommunications network, comprising:

storing a group name in a first database;

storing the group name in a second database;

detecting a request from a user for data corresponding to a network device in the telecommunications network;

generating a data access request to the second database using the group name from the first database;

- 5 retrieving data from the second database associated with the group name in response to the user request; and
- displaying the data in a user interface.

256